

CALL FOR PAPERS
IEEE Transactions on Software Engineering
Special Issue on Software Language Engineering
May-June Issue of 2009

IEEE Transactions on Software Engineering seeks original manuscripts for a Special Issue on Software Language Engineering scheduled to appear in **the May-June issue of 2009**.

The term ‘software language’ comprises all sorts of artificial languages that are used in software-intensive systems and software engineering including programming languages, domain-specific languages, data models, ontologies, and modeling languages. Not always are these languages explicitly described (by grammars, schemas, models, or otherwise); sometimes they are ‘hidden’ in code, coding conventions, or design patterns. If Software Engineering is “the application of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software” [IEEE Std. Glossary, 1990], then Software Language Engineering (SLE) is *the application of a systematic, disciplined, quantifiable approach to the development, use, and maintenance of languages in software engineering*. SLE is particularly concerned with (i) the life cycle of software languages including design, implementation, documentation, testing, deployment, evolution, recovery, and retirement; (ii) the treatment of language descriptions as software artifacts, akin to programs, subject to tailored engineering principles and methods such as modularization, refactoring, refinement, composition, versioning, and analysis; (iii) programming support and engineering principles for transformations (or mappings, translations, conversions) between different software languages or different manifestations of the same software language such as those in X/O/R mapping; (iv) the management of coupling and cohesion in software systems caused by the invasive use of languages; (v) consistency management for the uses of languages in software systems; (vi) language integration for interrelated uses of software languages.

We solicit high-quality contributions with consolidated and thoroughly evaluated research results in the area of SLE that are worthy of archival publication in the Transactions on Software Engineering. These are the topics of interest:

- The fundamental SLE concerns (i) – (vi) listed above.
- *Language engineering-related aspects* of the following paradigms and application domains:
 - o Domain-specific languages – infrastructure, design methods, execution platforms.
 - o Programming platforms – API evolution, extensible type systems, IDE support.
 - o Web Engineering – schema-based generators, ontology-based annotation.
 - o Service Oriented Architectures – platforms, frameworks, service and policy languages.
 - o Model-driven development – meta-models, model transformations, and round-tripping.

Submitted articles must not have been previously published or currently submitted for journal publication elsewhere. As an author, you are responsible for understanding and adhering to our submission guidelines. You can access them at <http://www.computer.org/mc/tse/author.htm>. Please thoroughly read these before submitting your manuscript.

The papers should be submitted online at the *IEEE Transactions on Software Engineering* submission site (<https://mc.manuscriptcentral.com/cs-ieee>) with a note/tag designating the manuscript to this special issue. All submissions will be peer-reviewed by at least 3 experts in the field. Priority will be given to work with high novelty and potential impacts. Please feel free to contact the Peer Review Manager, Suzanne Wagner at sawagner@computer.org or the guest editors at sle-tse-editors@list.uni-koblenz.de, if you have any questions. Please note the following important dates.

Important dates:

- **Submission Deadline: 1-April-08**
- **Reviews Completed: 1-August-08**
- **Major Revisions Due: 1-October-08**
- **Re-reviews Completed: 1-November-08**
- **Minor Revision Due: 1-December-08**
- **Final recommendations: 15-December-08**
- **Final Manuscripts Due: 15-January-09**
- **Publication Date: May/June-09**

Guest editors:

- Jean-Marie Favre, University of Grenoble, France
- Dragan Gašević, Athabasca University, Canada
- Ralf Lämmel, University of Koblenz-Landau, Germany
- Andreas Winter, Johannes-Gutenberg-Universität, Mainz, Germany